

97-84012-3

Roberts, Henry

Home reform: or, Advice to  
the labouring classes on...

London

[1855?]

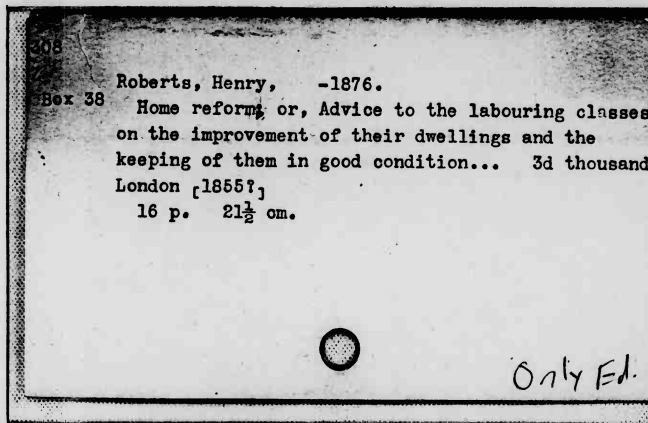
97-84012-5

MASTER NEGATIVE #

COLUMBIA UNIVERSITY LIBRARIES  
PRESERVATION DIVISION

BIBLIOGRAPHIC MICROFORM TARGET

ORIGINAL MATERIAL AS FILMED - EXISTING BIBLIOGRAPHIC RECORD



RESTRICTIONS ON USE: Reproductions may not be made without permission from Columbia University Libraries.

TECHNICAL MICROFORM DATA

FILM SIZE: 35 mm

REDUCTION RATIO: 10:1

IMAGE PLACEMENT: IA (IIA) IB IIB

DATE FILMED: 2-4-97

INITIALS: PB

TRACKING #: MSH 20800

FILMED BY PRESERVATION RESOURCES, BETHLEHEM, PA.

*Mass. Institute of Technology*

308  
2

B7 38

*GL*

# HOME REFORM:

OR,

ADVICE TO THE LABOURING CLASSES

ON THE

IMPROVEMENT OF THEIR DWELLINGS,

AND THE KEEPING THEM IN GOOD CONDITION.

*THIRD THOUSAND.*

PUBLISHED BY, AND SOLD FOR THE BENEFIT OF  
THE SOCIETY FOR IMPROVING THE CONDITION OF THE  
LABOURING CLASSES,

At No. 21, EXETER HALL, STRAND, LONDON;

ALSO, BY MESSRS. SEELEYS; NISBET; HATCHARD; AND PARKER,  
LONDON.

*Price 3d.; or 2s. 6d. per Dozen.*

# HOME REFORM:

OR,

ADVICE TO THE LABOURING CLASSES

ON THE

Improvement of their Dwellings,

AND THE KEEPING THEM IN GOOD CONDITION.

BY

HENRY ROBERTS, F.S.A.

HONORARY ARCHITECT TO THE SOCIETY FOR IMPROVING THE CONDITION  
OF THE LABOURING CLASSES.

THIRD THOUSAND.

PUBLISHED BY, AND SOLD FOR THE BENEFIT OF  
THE SOCIETY FOR IMPROVING THE CONDITION OF THE  
LABOURING CLASSES,

At No. 21, EXETER HALL, STRAND, LONDON;

ALSO, BY MESSRS. SEELEYS; NISBET; HATCHARD; AND PARKER,  
LONDON.

Price 3d.; or, 2s. 6d. per Dozen.

1855?

TO  
1/1/21

THE RIGHT HONOURABLE  
THE EARL OF SHAFTESBURY,

THE FOLLOWING ADDRESS,  
THE SUBSTANCE OF WHICH WAS ORIGINALLY DELIVERED TO THE MEMBERS  
OF A YOUNG MEN'S SOCIETY AT HARROW,

Is Inscribed,

WITH SINCERE RESPECT AND ESTEEM,  
BY ONE WHO FOR MANY YEARS HAS LABOURED WITH HIM  
IN ENDEAVOURING TO  
IMPROVE THE HOMES OF THE WORKING CLASSES.

MS. 8. 21. 24. 16

ADVICE  
TO THE LABOURING CLASSES  
ON THE  
IMPROVEMENT OF THEIR DWELLINGS,  
AND THE  
KEEPING THEM IN GOOD CONDITION.

For some years past, public attention has been directed to the Dwellings of the Labouring Classes, and to the necessity which extensively exists for their improvement.

In the efforts made for accomplishing this important object, the most exalted in station have manifested their sympathy, whilst by example and by precept they have recognised and enforced the obligations which, in regard thereto, rest on all classes of society.

Laws have been made with a view to encourage as well as to enforce sanitary improvements, and thereby to promote the health, comfort, and general welfare of the working classes.

Societies have been established, and zealously engaged in the building of model dwellings for the labouring portion of the community. Plans and instructions have been published with a view to facilitate the extension of such efforts, and their adoption has been attended with the most encouraging success.

Whilst, however, these and similar efforts have been made in recognition of the obvious fact that the working man has but very rarely the opportunity of improving the *structural* arrangements of his dwelling, and is too often obliged to submit to many serious evils which result therefrom, it has been not less felt that there are other evils in regard to his abode which lie within the power of the working man to remedy, or at all events greatly to mitigate; and the chief aim of the following pages is to point out how his own efforts may be best directed to secure the accomplishment of an object so essential to his well-being, or, in other words, to answer the inquiry, What may be done by the working man himself to improve his home?

And here we must commence by asserting that, however much the physical and moral evils of the working classes are justly attributable

to their dwellings, it is too often the case that more may in truth be imputed to themselves. For surely the inmate depends less on the house, than the house on the inmate; mind has more power over matter than matter over mind. Let a dwelling be ever so poor and incommodious, yet a family with decent and cleanly habits will contrive to make the best of it, and will take care that there shall be nothing offensive in it which they have power to remove. Whereas a model house, fitted up with every convenience and comfort which modern science can supply, will, if occupied by persons of intemperate and uncleanly habits, speedily become a disgrace and a nuisance. A sober, industrious, and cleanly couple will impart an air of decency and respectability to the poorest dwelling; whilst the drunkard, the spendthrift, or the gambler, will convert a palace into a scene of discomfort and misery. Since, therefore, so much depends on the character and conduct of the parties themselves, it is right that they should feel their responsibility in this important matter, and that they should know and attend to the various points connected with the improvement of their homes.

The fact that disease is much more common among the poor than among those in better circumstances, and that the average duration of life among the industrious classes is scarcely more (including children) than one-half that of the wealthy, ought surely to arouse the former to some great effort of improvement in order to remove the causes of such direful effects; and the more so, as it has been proved by experience, the most conclusive of all evidence, that the labouring man and his family residing in a healthy dwelling have every reason to expect the same measure of health and life as is enjoyed by the more wealthy classes. The average rate of mortality in the model houses in London has in no case exceeded 13 to 14 in 1000; whilst in the districts in which those houses are mostly situated, the average has been 27 to 28 in 1000. Typhus fever, one of the most constant causes of premature death among the working classes, is unknown in the model houses.

If the wife or the children of the working man be ill, he incurs expense, sacrifices time and trouble to obtain their restoration to health; but from his want of knowledge he sees not the cause of illness in the absence of cleanliness or ventilation in his apartments, or in the presence of dirt or filth in his neighbourhood sending forth poisonous exhalations, and causing fevers and sickness amongst those who are subject to their influence.

Habits of industry, economy, order, and cleanliness will do much to remedy existing evils, and to render the most humble cottage an

abode of domestic peace and happiness, whilst the improvidence and dishonesty which often lead to the want of punctuality in, or to the non-payment of rent, is an evil which affects not the individual himself alone, but in some degree the whole class. Men of capital are thereby deterred from investing their property in improved buildings for those from whom it is difficult to obtain regular payment, and whose frequent appeals to their sympathy and forbearance may diminish considerably the per-centage return on their investments.

There can, however, be no doubt that, as a general rule, the best conducted persons obtain better dwellings than their improvident and dishonest neighbours. A good landlord will give the preference to, and encourage such tenants, whilst the man who, though he be in the receipt of large wages, is a spendthrift or a drunkard, inevitably lives in a state either of embarrassment or of beggarly wretchedness.

How great a contrast exists between the home of the man who, earning six or seven shillings daily, spends two-thirds of it at the public house, and that of the hard-working sober labourer, who, though in receipt of not more than eight or ten shillings a week, takes it to his frugal and industrious wife, and by her the husband's home is made a happy home, much more attractive to him than the beer-shop or public-house, whilst he is respected by all around him.

Here, then, is the first point to which attention should be directed, as a means within the reach of every working man who desires to improve his own home. Avoid the public-house and the beer-shop. Habits of strict temperance and moderation conduce greatly to health and longevity, whilst they will enable you to provide more home comforts than you are at all aware of. The late Mr. Porter, of the Board of Trade, has shown that the people of England, Scotland, and Ireland, and chiefly the working classes, tax themselves annually to the extent of 57,063,230*l.* for the three excisable articles of spirits, beer, and tobacco.

It has been calculated that among those whose labour produces from ten to fifteen shillings weekly, at least one-half is spent by the man on objects in which the other members of the family have no share.\* Among artisans, earning from twenty to thirty shillings weekly, in many cases not less than one-third of the amount is thus selfishly devoted. That such a state of things need not be, and that if people generally were more alive to their social duties it would not be, may be inferred from the fact that it rarely if ever exists in the numerous cases wherein earnings not exceeding those of the artisan class are all

\* Why should not working people, as a substitute for the public-house and beer-shop, purchase a small barrel of good beer, and drink it at home with their families?

that are obtained by the head of a family employed in a department for which education is necessary. Take the case of a clerk with a salary of 80*l.* a year—a trifle above 30*s.* a week,—and it would be considered quite exceptional if even a fourth-part of his earnings were spent upon objects in which the wife and children do not participate. A man, whose lot is cast among the easy classes, exhibiting such a degree of personal indulgence would be pointed at as an example of heartless selfishness.

Similar to, if not a necessary consequence of, the improvidence which so greatly reduces the working man's available means of support, is the habit of resorting to the Pawnbroker whenever by sickness or any other cause he is deprived of work; at such times the man of industry and forethought will be able to draw on his deposit in the Savings Bank, or to claim from his Friendly Society that temporary assistance which will enable him not only to meet the wants of his family, but also to sustain his credit with his landlord and to maintain that happy feeling of honest independence which ought to be cherished by every working man.

Amongst the removable causes of much physical suffering to the labouring classes, as well as to many in more easy circumstances, is the want of due regard to the air inhaled at every breath—to the quantity of light in the rooms which are occupied—to personal and to household cleanliness—to the purity of the water which is drunk, and to efficient drainage, with freedom from the escape of noxious effluvia.

If the working classes were aware of the great amount of disease, of the numerous deaths, and of the consequent suffering which result from the *unhealthy state of the atmosphere* breathed in their homes, they would instinctively use the means within their own reach for remedying so great an evil.

The necessity for the admission of *fresh air* into all apartments occupied by human beings, and the importance of providing for the escape of bad or vitiated air, will be evident from the fact that every person during each minute vitiates a considerable volume of air, that is, renders it impure or unfit to do the very work which breathing is designed to do in the wonderful machinery of animal life.

Every one must have remarked the copious *exhalation* of moisture which takes place in breathing, and which presents a striking resemblance to the exhalation from the surface of the skin. In the former, as in the latter instance, the exhalation is carried on by the innumerable minute capillary vessels in which the small arterial branches terminate in the air-cells. Breathing from the lungs is, in fact, one of the chief outlets of waste matter from the system; and the air which we breathe

is thus vitiated, not only by the subtraction of its oxygen, and the addition of carbonic acid, but also by animal effluvia, with which it is loaded when returned from the lungs. In some individuals, this last source of impurity is so powerful as to render their vicinity offensive and even insupportable to the by-standers, and it is its presence which gives the disagreeable, sickening smell to crowded rooms.

*Absorption*, in like manner, takes place in the lining membrane of the lungs, as we have seen that it does in the skin. When a person breathes an atmosphere loaded with fumes of spirits, of tobacco, of turpentine, or of any other volatile substance, a portion of the fumes is taken up by the absorbing vessels of the lungs, and carried into the system, and there produces precisely the same effects as if introduced into the stomach: animals, for example, have been killed by being made to inhale the fumes of prussic acid for a few minutes. The lungs thus become a ready inlet to contagion, and other poisonous influences diffused through the air which we breathe.

It is an essential condition of healthy respiration that a regular supply of pure fresh air be provided, without which the requisite changes in the constitution of the blood, as it passes through the lungs, cannot be effected. In order that you may understand and appreciate this important condition, some explanatory remarks on the nature of the changes alluded to will be necessary.

*Atmospheric air* consists of about seventy-eight per cent. of nitrogen or azotic gas, twenty-one per cent. of oxygen, and not quite one per cent. of carbonic acid or fixed air; and such is its constitution when taken into the lungs in the act of breathing. When it is expelled from them, however, its composition is found to be greatly altered. The quantity of nitrogen remains nearly the same, but about eight per cent. of the oxygen, or vital air, have disappeared, and been replaced by an equal amount of carbonic acid. In addition to these changes, the air which has been breathed is loaded with moisture. Simultaneously with these occurrences, the blood collected from the veins, which enters the lungs of a dark colour and unfit for the support of life, assumes a florid red hue, and acquires the power of supporting life.

It is not easy to offer a satisfactory explanation of the process by which these changes are effected in the lungs. Whatever be the true theory, all physiologists are agreed as to the fact that the arterialization of the blood in the lungs is essentially dependent on the supply of oxygen contained in the air which we breathe, and that air is fit or unfit for respiration in exact proportion as its quantity of oxygen approaches to or differs from that contained in pure air. If, course-

quently, we attempt to breathe nitrogen, hydrogen, or any other gas not containing oxygen, the result will be speedy suffocation; whilst if we breathe air containing a too high proportion of oxygen, the vital powers will speedily suffer from excess of stimulus. From oxygen being thus essential to life and respiration it is often called vital air, in contradistinction to those gases which are incapable of supporting life.

From these considerations, the importance of a due supply of fresh air wherever living beings are congregated must be obvious. It is calculated that a man under ordinary circumstances consumes about 45,000 cubic inches of oxygen, and gives out about 40,000 cubic inches of carbonic acid, in twenty-four hours.

The fatal effects of breathing highly-vitiated air may easily be made the subject of experiment. When a mouse is confined in a large and tight glass jar full of air, it seems for a short time to experience no inconvenience, but in proportion as the consumption of oxygen and the exhalation of carbonic acid proceeds, it begins to show symptoms of uneasiness, and to pant in its breathing, as if struggling for air; and in a few hours it dies, convulsed, exactly as if drowned or strangled. The same results follow the deprivation or vitiation of air in regard to man and to all animated beings.

Numerous instances might be adduced of the fatal effects resulting from the crowding together in one apartment a greater number of human beings than the air contained in it would sustain, and from the absence of all regard to scientific rules in effecting ventilation. The well-known instance of the Black Hole at Calcutta, with many others, are recorded in Dr. Andrew Combe's valuable work on the "Principles of Physiology applied to the Preservation of Health," of which free use has been made in the preceding remarks.

In dwelling houses lighted by *gas*, the frequent renewal of the air acquires increased importance. A single gas-burner will consume more oxygen, and produce more carbonic acid to deteriorate the atmosphere of a room than six or eight candles. If, therefore, where several burners are used, no provision be made for the escape of the corrupted air, and for the introduction of pure air from without, the health will necessarily suffer. An arrangement invented by Professor Faraday for carrying off the air thus vitiated has proved very effectual: its application may be learned at 110, Wardour-street, London.

The necessity for ventilation is not confined to rooms occupied in the day, but it is of equal, if not greater, importance in sleeping apartments, which, of the two, are generally by far the most unwholesome. If the windows be opened for a short period in the morning, this is usually deemed sufficient, but no provision is made for the

admission of pure air during the night, although on this mainly depends the restorative and refreshing effect of sleep. Curtains, and whatever tends to exclude a free circulation of pure air, ought to be avoided, and great care should be taken to change the bed clothes frequently, and to expose them to a draught through the day, in order to carry off the impurities with which they are saturated during the night. Small bedrooms should be as little encumbered with furniture as possible, and the habit of stowing lumber under the bed be entirely abandoned.

The want of a free circulation of air greatly aggravates the evil which, in many dwellings, results from damp walls and floors. In the construction of new buildings it is easy to provide for these two most essential requisites of a healthy home—viz., that it should be dry and well ventilated; and if the working classes would, as far as may be in their power, practically manifest a sense of their importance, the same beneficial results might follow, which are already seen in London, where landlords begin to find that since improved accommodation has been provided in the Model Houses, tenants will not so easily submit to the defective and uncomfortable dwellings hitherto provided for them.

Those who have investigated the subject on scientific principles, show that in a dwelling house each person ought to be allowed from 240 to 300 cubic feet of air to breathe per hour, or from four to five cubic feet per minute, and that by a continued movement it should be changed within that period. In a hospital the allowance must be considerably greater; in such buildings the want of attention to this all important provision has in past years too often aggravated disease, and caused a great destruction of human life.

*Ventilation* may be described as of two kinds, natural, and mechanical or artificial. Doors and windows, with the crevices round them, chimneys and fire-places, conduce to the former; valves, fans, pumps, screws, and other contrivances are employed to produce the latter.

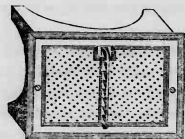
Whenever a fire is lighted, the air in the lower part of the room is immediately set in motion, and a current begins to flow from the door and window, or any other opening, to the chimney, whereby much of the air which has become vitiated is carried off. The process of ventilation, in some slight degree, takes place when there is no fire in the chimney, and therefore bedrooms are much more healthy with an open chimney than without one.

In giving some *practical directions for ventilation*, it may be remarked that improvements easily adopted in new are not always applicable to old buildings; but the general principles should be



carried out as far as circumstances will admit, under the deep conviction of the absolute necessity of pure air for the sustenance of a healthy state both of body and of mind.

In existing buildings, the ventilation of any living apartment may be generally much improved, without any sensible draught, by the introduction of an air brick externally, and an iron frame internally, to which a sheet of perforated zinc is attached, with an iron plate hung at the back to close it by means of a fall down rack.\* In small rooms with a fire-place, the change of air thus caused, in addition to that from the door and window above described, is generally found sufficient to keep it in a healthy state.



In every room an opening for the escape of vitiated air ought to be made near the ceiling, especially in small bedrooms without fire-places. In some cases this may be effectively done by carrying up a metal pipe through the roof, bent at the top; in other cases an opening may be made over the door, with a piece of perforated zinc fitted in it. In some situations perforated or ventilating glass may be used with advantage, always remembering that where openings can be formed on the opposite sides of rooms, the air will be most speedily and effectually changed.

Chimney valves have been much recommended, but owing to the practical inconvenience which is so often found to arise from the entrance of smoke, the author has abandoned their use, excepting in new buildings, when an independent flue or hollow brick has been carried up some height, and then opened into the chimney; this arrangement, with a valve, or a frame like that previously described, has proved very effective.†

\* Such ventilators are sold by Hart and Sons, No. 53, Wych-street, Strand, at 2s. 3d. and 3s. each, according to size. They may be fixed by any common brick-layer—a neighbour would do it for a trifle.

† Fresh air may with great advantage be introduced into most apartments which have a fire-place, by conveying it through a flue, a tube, or hollow bricks in the wall, or under the floor, opening into the lowest level of an air chamber, formed at the back of the range or stove, or behind the front, which may be made to form a chamber about the fire-box or grate, being closed at the top by a metal plate or tiles, or by the boiler, if it be a range. In old buildings, openings should be made through the face or cheeks, for the purpose of admitting air to feed the fire, which will prevent the up-draught of any flues provided for carrying off the foul air being checked, and therefore render the application of Dr. Arnott's chimney-ventilators more certain than they have generally proved. Smoke and draughts towards the fire from the windows and doors would be also prevented. In new buildings the air warmed in the chamber above described, may be allowed to pass up a flue formed for the purpose in one of the chimney jambs, and thence enter the room at any convenient height. It may also be conveyed to a cupboard for drying damp cloths, or be allowed to escape in an upper floor room, which would thus be aired.

Nearly allied to ventilation, is the importance of a *sufficiency of light* in every apartment inhabited by human beings. It is a medical opinion that "the amount of disease in light rooms, as compared with dark ones, is vastly less." The rays of the sun are especially beneficial, and ought not to be obstructed, but welcomed as harbingers of health and joy. To admit as much light as practicable, let the windows be kept clean, and if blinds and curtains are deemed necessary, let them be fixed so as to obstruct as little light as possible. In a vast number of rooms, there is a miserable deficiency of light, and a gloomy state of feeling is the necessary consequence, even if the physical and moral senses are not, as in most cases it is to be feared they are, seriously injured. Happily the recent repeal of the duty on windows has removed one powerful inducement to exclude the light of heaven from our dwellings, whilst the sanitary regulations of the Public Health Act in regard to the occupation of cellar apartments, will, when duly enforced, greatly diminish the number of inhabited rooms from which light and air are excluded.

The importance of pure air, the necessity of adequate ventilation, and of a sufficiency of light having been dwelt upon, the next essential requisite to a healthy and comfortable home which we have now to consider is *cleanliness*; the want of this renders many a dwelling little better than a pigsty.

Whence arises the difference between two neighbouring cottages? In accommodation and in structural arrangements they may be precisely similar, even the same roof may span them both. A glance at the entrance door, or at the window, will reveal the secret, and proclaim that the presiding spirit in the one is that of order and cleanliness, whilst in the other, disorder and dirt have the sway.

If you doubt whether the sunken and dirty threshold, the broken door, or the patched and dingy window fairly indicate the internal aspect of yonder house, you have only to enter and to be satisfied that the good and practically important injunction, "a place for everything and everything in its place," if ever taught to its inmates, has had no more effect on them than the kindred precept "cleanliness is next to godliness." Alas, alas! in how many cases does the health, the happiness, and the character of the working man gradually sink, from utter neglect of his own interest and well being! Whence arises that close and noxious smell which contaminates the atmosphere of so many a dwelling, even where there is no deficiency in the means of ventilation, but from the constant accumulation of filth in the corners and crevices of the house! to say nothing of the more obvious sources of impurity which present themselves in every over-crowded abode.

Is it in such a dwelling that we look for the faithful discharge of relative duties, for parents training up their children in the way they should go, and cultivating those dispositions and feelings which conduce no less to their happiness here than they are in harmony with the great end and object of life—the preparation for a state of purity and bliss hereafter?

That the want of personal cleanliness, and the dirty condition of a large proportion of the houses of the working classes, is one of the greatest barriers to their improvement, cannot be questioned by any one who has investigated the subject, and it is no less certain that the first step in the downward course most usually begins with want of cleanliness; disease, depravity, and vice follow in succession. Yet few persons, however poor, cannot be clean if they will. Neglect of personal cleanliness leads to neglect of household cleanliness, and the latter undermines everything approaching to domestic comfort, even if it does not, as is too often the case, render the dwelling, instead of being a happy home, the very centre of moral and physical contagion.

Lest ignorance be pleaded in excuse for the neglect of the duties here enjoined, your attention, and especially that of your wives, is particularly directed to the following details, as a practical illustration of the most important requisites in household cleanliness.

The floors and stairs of your dwelling should be swept daily, and cleaned at least once a week. The walls and ceilings, if not whitened every year, as they should in most cases be, ought never to remain two years without thorough cleaning.\* The chimneys in use ought to be swept at least every six months. The windows should be frequently cleaned, and repaired when broken—not patched with paper. Carefully avoid all accumulation of refuse or filth in the sink, and see that the pipe leading from it to the drain is properly trapped. Where there is a wash-house it should be kept perfectly clean. Ashes or other litter ought not to be deposited near to the entrance or to the back door. The out-house should be kept in a clean and decent state; and on no account have pigsties or a dung-heap close to the dwelling, unless you desire that fever or cholera be attracted to your abode.

The numerous regulations for personal ablution, and others of a

\* Colouring in distemper, or water-colours, is better and more economical for the working classes than either paint or paper, as it may be done by themselves, and consequently more frequently, at a trifling expense. A little whitening and size, tinted with colour to suit the taste, is all that is necessary. Whitewash for ceilings may be prepared by mixing whitening with water, quite smooth, and about as thick as cream; size is added to make it adhesive. Both walls and ceilings ought to be washed clean previous to recolouring.

general sanitary character, contained in the Books of Moses, were doubtless intended to promote the health and longevity of the Jewish people, as well as to impress upon them the necessity for moral cleansing. In both these points of view they deserve the serious consideration of the working classes.

The practice of hanging damp linen either in the living-room or the bedrooms cannot be too strongly deprecated; the impurity of the air thus engendered, and the damp imbibed by the walls and bed clothes, is a frequent cause of disease. When the weather or circumstances will not admit of clothes being dried in the external air, the wash-house or scullery is the only place where they can be hung with safety.—If the opportunity of using a public wash-house be afforded, do not neglect it from the false idea of economy, to the great detriment of health, comfort, and probably of domestic happiness. The wife should constantly bear in mind, that nothing is more likely to drive her husband to the public-house or the beer-shop than an uncomfortable home.

There are but very few cases in which these simple rules cannot be fully carried into effect; in some instances, scarcity of water is an obstacle; and in other cases the situation of the dwelling may be unfavourable to efficient drainage; yet every one has the power of doing something towards improvement, of trying to help himself instead of waiting to be helped, and of exerting himself to remove or overcome inconveniences instead of giving way to such as may surround him. Efforts like these are sure to be rewarded, if not by complete at least by partial success, and they stimulate as well as encourage those who have the means of increasing the facilities afforded to the working classes for improving their homes; whilst nothing can tend more to discourage such exertions on their behalf than the want of effort and co-operation on the part of the working classes themselves.

In further pursuing our inquiry we must now allude to the great importance of an *adequate supply of pure water and of efficient drainage*. In the most essential of sanitary provisions, the cities of modern times appear to be far behind the metropolis of the ancient world. He who has traversed the Campagna di Roma can never forget the gigantic aqueducts whose ruins proclaim how abundantly and at what cost Rome was supplied with water. Nor can a glance at the Cloaca-Maxima, or great sewer, have failed of producing a conviction of the importance which the ancient Romans attached to an efficient drainage.

In many towns the labouring classes, in common with their more

wealthy neighbours, suffer much both from deficiency in quantity, and inferiority in quality, of the *water* with which they are supplied—this has been especially the case in the Metropolis of Great Britain. To discuss the remedy for so very serious an evil, or whether the best legislative measures for its removal have been adopted, is not within the scope of this address; suffice it to say, that the uncomfortable, filthy, and consequently unhealthy state of the homes of the working classes is in many instances greatly attributable to this general deficiency.

The gases proceeding from *cesspools* and badly constructed *sewers*, which so many thousands of persons are daily inhaling, though they do not, in their diluted state, suddenly extinguish life, are, it has been justly remarked, identically the same in nature with the confined sewer-gas which not long since at Pimlico killed with the rapidity of lightning those who were exposed to its influence. These gases, whether they arise from cesspools, badly constructed drains, or ditches used as open sewers, taint the air, and produce a state of atmosphere the most congenial to the spread of epidemic disorders, as well as of cholera, and, beyond all known influences of their class, tend to diminish the probability of life.

The following account, taken from the public papers, gives a recent and melancholy illustration of what has been stated:—

"At Sheffield a man and his wife were found dead in their bedroom, under very peculiar circumstances. The man was lying on the floor on the opposite side of the bed to that on which the woman was lying, but in a similar position. Both were quite dead. Both the deceased were about fifty-three years of age. On the inquest the following discovery was made:—At the south end of the house, and about four yards distant, there is a cesspool, into which was thrown, about a week ago, a mattress on which a sick man had lain a long time, and some mischievous persons had set it on fire. The mattress continued in a smouldering state all last week. The wife, who was asthmatical, complained of the stench from the cesspool intercepting her breathing, and her husband covered over the smouldering mass with ashes. A heavy fall of rain formed this superficial layer of ashes into a concrete, so that the exhalations from the smothered fire could no longer arise. The noxious steam consequently penetrated the foundation wall of the house, which was already decayed by the action of the feculent matter, and the fumes stole into the bedroom. It was a small, low room, very imperfectly ventilated, the fireplace being closed by a board. While the unconscious victims were quietly reposing, the room became filled with the noxious exhalation, which being strongly charged with sulphuretted hydrogen gas, destroyed their lives so subtly, as not to disturb their sleep. The olfactory nerves had been previously blunted by the intolerable stench."

It is a well-ascertained fact, that diseases which formerly prevailed in particular localities have, under the influence of sanitary improvements, especially in regard to the cleanliness of the houses and the persons of their occupants, with a free circulation of fresh air, greatly diminished, and in many instances entirely ceased. This has been the case to a remarkable degree in some of the valleys of Switzerland,

where the painful disease in the neck called 'goitre,' and the form of idiocy called 'cretinism,' formerly prevailed much more extensively than they do at present.

That to the neglect of the sanitary condition of the dwellings of the labouring classes may in great measure be attributed the awful ravages made by the cholera,\* is evident from the fact that in none of the Model Houses in the Metropolis did a single death occur during the whole visitation of 1849, whilst in houses closely proximate the cases of fatal attack were very numerous. In a dwelling nearly opposite one of these houses, several deaths occurred in a few days, caused by a cesspool under the cellar.

It has been estimated by one of the most able medical officers that, of the 52,000 deaths which occur annually in the City of London, one-half might have been averted by the use of means at our disposal, whilst the untold amount of acute suffering and lingering disease caused by neglect must be beyond calculation. Nor is this sacrifice of human life and loss of health through neglect confined to the Metropolis of Great Britain; it unquestionably extends, in a greater or in a less degree, to every large town, and even to many small towns and villages.

The contrasts, however, which exist in different localities, as well as in neighbouring houses, show how much depends on the inhabitants themselves; take, for example, the evidence of a public inspector, who thus writes—"One marked and favourable peculiarity even amongst the poorest Norwich weavers, is their strict attention to cleanliness and decency in their dwellings—a token of self-respect and a proof of ideas and habits, of which the severest privations in food and dress did not seem to be able to deprive them. Their rooms might be destitute of almost all the necessary articles of furniture; but the few that remained were clean, the walls and staircases whitewashed, the floors carefully swept and washed, the court or alley cleared of everything offensive; the children wearing shoes and stockings, however sorry in kind, and the clothes not ragged, however incongruously patched and darned. 'Cleanliness and propriety,' said one man, 'are, in spite of our poverty, the pride of Norwich people, who would have nothing to say to dirty neighbours.'" This laudable peculiarity is not confined to the county town, but is manifest also in the cottages of the Norfolk peasantry, many of whom, though in receipt of wages not exceeding eight to ten shillings per week, add to scrupulous cleanliness a degree

\* Of upwards of 18,000 deaths from cholera in London in the year 1849, the following were the proportions in every 1000:—Of the gentry, 26; of tradesmen, 157; of mechanics and labourers, 817.

of taste, which is manifested by the table coverlet, the chair back net, and the chimney ornament. In contrast, let us hear the evidence of a clergyman, the Rev. Charles Hensley, who says of Gainsborough—"Smoking is very general among the women, and opium eating prevails very commonly amongst the poor. I think that both these habits foster idleness, and in consequence their houses are not kept clean and tidy. The men find nothing but discomfort on returning from work, and resort to the public-house, and the extent of drunkenness may be partly attributed to that. I am of opinion that uncleanness and discomfort cause the females to use the stimulants I have named. I think there is no doubt that those (districts) in the worst sanitary condition are lowest as to their social and moral state."

Innumerable witnesses might be adduced to prove the frightful extent to which the homes of the working classes, instead of being the abodes of peace and happiness, are the very reverse, and this in no inconsiderable degree, through either their own misconduct, improvidence, or neglect.

My aim has been to impress on your minds the magnitude of the evils brought under consideration, and to point out and enforce the remedies within your own reach; in commending both to your serious reflection, with the firm assurance that the state of the homes of the working classes is intimately connected with their best interests, as well as with their physical health and comfort, I will not conceal my settled conviction that the Word of God, made the guiding rule of conduct, alone gives *security* for the enjoyment of a truly and permanently happy home; whilst the practical effects of a disregard for its sacred precepts are nowhere more obvious than in the home of the drunkard, the spendthrift, and the sensualist, of those whose vicious habits have rendered them insensible to dirt and wretchedness.

Let all who desire to enjoy both a happy and a healthy home, ponder over, and aim at exemplifying in their conduct that comprehensive apostolic injunction, "Whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report; if there be any virtue, and if there be any praise, think on these things."—PHILIPPIANS iv. 8.

THE END.

**Publications by the Society  
For Improving the Condition of the Labouring Classes,  
21, Exeter Hall, London.**

**The Physical Condition of the Labouring Classes,** resulting from the state of their Dwellings, and the beneficial effects of Sanitary Improvements recently adopted in England. By HENRY ROBERTS, Esq., F.S.A. Price 2*d.* each, or 18*d.* per dozen.

**The Dwellings of the Labouring Classes, their Arrangement and Construction, with Descriptions, Plans, &c., of the Model Houses belonging to the Society.** Numerous Designs for Dwellings adapted to Towns as well as to Agricultural and Manufacturing Districts, and an Appendix, containing a Description, Plan, &c., of H.R.H. Prince Albert's Model Houses at the Exhibition, Hyde Park, 1851; Model Cottages, &c., built by the Windsor Royal Society. By HENRY ROBERTS, Esq., F.S.A. Fifth Thousand. Enlarged Edition. 4*s.* cloth.

\* \* The First Edition of this Work was translated and published in French, by order of the Emperor, when President of the Republic. Gide et Baudry, Editeurs, Rue Bonaparte, No. 5, Paris.

**Cottage Pamphlet, containing a Plan and brief Description of H.R.H. Prince Albert's Model Houses.**—Plans and Suggestions for Cottages in Agricultural Districts, and for a Lodging House for Unmarried Labourers, adapted to Agricultural, Mining, and Quarry Districts, with Remarks on the Construction of Cottages. Price 6*d.*

**Working Drawings, at a large scale, with Specifications, &c., for Agricultural Labourers' Cottages, and for a Lodging House, according to the Designs given in the Essay on the Dwellings of the Labouring Classes, and in the Cottage Pamphlet.** Each Design complete on one sheet, price 2*s.* Specification for ditto, 1*s.* Bills of Quantities, 1*s.* 6*d.* Or one sheet of Working Drawings, with Specification and Bill of Quantities, 4*s.*

**Plans and Descriptions of the Model Dwellings in London, built and fitted up by the Society.** Price 2*d.*

**The Acts for Regulating Common Lodging Houses, and for Establishing Lodging Houses for the Labouring Classes.** Edited, with Comments and Annotations. By R. A. STRANGE, Esq., Barrister. Price 1*s.*

**Rules for a Friendly Society.**

**Cheap and Nutritious Food for Cottagers' Families.** Price 1*d.*

**END OF  
TITLE**